Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-36. (Cancelled).

37. (New) A method of automatically adjusting a fragmentation threshold for data transmissions between an access point and one or more associated wireless units, comprising:

determining a transmission error factor indicative of errors occurring in a transmission of one or more data packets between the access point and the one or more associated wireless units; and

automatically adjusting the fragmentation threshold based on the transmission error factor after translating a desired finite time duration for the transmission into the fragmentation threshold based of a data transmission rate of at least one data packet following the one or more data packets.

38. (New) The method of claim 37, wherein the determining of the transmission error factor comprises:

transmitting the one or more data packets; and

determining the transmission error factor based on a number of acknowledgement packets received in response to the transmitted one or more data packets.

39. (New) The method of claim 37, wherein the transmission error factor is based on a number of errors occurring in the transmission of the one or more data packets.

40. (New) The method of claim 37, wherein the transmission error factor is a value being a sum of (i) a number of transmission errors occurring successively multiplied by a first weighing factor and (ii) a number of transmission errors occurring sporadically multiplied by a second weighing factor, the first weighing factor being greater than the second weighing factor.

41.   (New) The method of claim 37, wherein the transmission error factor is a weighed value with transmission errors occurring successively having a greater weighing than transmission errors occurring sporadically.

42.   (New) The method of claim 37, wherein automatically adjusting the fragmentation threshold comprises:

comparing the transmission error factor to an upper threshold; and

decreasing the finite time duration by decreasing the fragmentation threshold if the transmission error factor is above the upper threshold.

43.   (New) The method of claim 37, wherein automatically adjusting the fragmentation threshold comprises:

comparing the transmission error factor to a lower threshold; and

increasing the finite time duration by increasing the fragmentation threshold if the transmission error factor is below the lower threshold.

44.   (New) The method of claim 37, wherein automatically adjusting the fragmentation threshold comprises:

comparing the transmission error factor to an upper threshold;

decreasing the finite time duration by decreasing the fragmentation threshold if the transmission error factor is above the upper threshold;

comparing the transmission error factor to a lower threshold; and

increasing the finite time duration by increasing the fragmentation threshold if the transmission error factor is below the lower threshold.

45.   (New) The method of clam 37, wherein automatically adjusting the fragmentation threshold comprises changing the fragmentation threshold by a divisional factor each time the fragmentation threshold is adjusted, the fragmentation threshold being based on a pre-determined fragmentation threshold divided by the divisional factor.

46.   (New) The method of claim 45, wherein the pre-determined fragmentation threshold is a maximum data packet size for transmission over a backbone network of a wireless network formed by the access point and the one or more associated wireless units.

47.   (New) The method of claim 45, wherein the pre-determined fragmentation threshold is related to a maximum data packet size for transmission over a wireless medium operating as a wireless communication path between the access point and the one or more associated wireless units.

48.   (New) Adapted to communicate with one or more associated wireless units, an access point comprising a logic circuit to:

determine a transmission error factor indicative of errors occurring in a transmission of a first group of data packets to the one or more associated wireless units; and

automatically adjust the fragmentation threshold based on the transmission error factor after translating a desired finite time duration for the transmission into the fragmentation threshold based of a data transmission rate of a second group of data packets following the first group of data packets.

49.   (New) The access point of claim 48, wherein the logic circuit in determining the transmission error factor is capable of:

transmitting the first group of data packets to the one or more associated wireless units; and

determining the transmission error factor based on a number of acknowledgement packets received in response to the transmitted the first group of data packets from the one or more associated wireless units.

50.   (New) The access point of claim 48, wherein the transmission error factor depends on a number of errors occurring in the transmission of the first group of data packets.

51.   (New) The access point of claim 48, wherein the transmission error factor is a value being a sum of (i) a number of transmission errors occurring successively for the first group of data packets multiplied by a first weighing factor and (ii) a number of transmission errors occurring sporadically for the first group of data packets multiplied by a second weighing factor.

52.   (New) The access point of claim 48, wherein the transmission error factor is a weighed value with transmission errors occurring successively having a greater weighing than transmission errors experienced by the first group of data packets occurs sporadically.

53.   (New) The access point of claim 48, wherein the logic circuit in automatically adjusting the fragmentation threshold is capable of:
comparing the transmission error factor to an upper threshold; and
decreasing the finite time duration by decreasing the fragmentation threshold if the transmission error factor is above the upper threshold.

54.   (New) The access point of claim 48, wherein the logic circuit in automatically adjusting the fragmentation threshold is capable of:
comparing the transmission error factor to a lower threshold; and
increasing the finite time duration by increasing the fragmentation threshold if the transmission error factor is below the lower threshold.

55.   (New) The access point of claim 48, wherein the logic circuit in automatically adjusting the fragmentation threshold changes the fragmentation threshold by a divisional factor each time the fragmentation threshold is adjusted, the fragmentation threshold being based on a pre-determined fragmentation threshold divided by the divisional factor.

56.   (New) The access point of clam 55, wherein the pre-determined fragmentation threshold is a maximum data packet size for transmission over a backbone network of a wireless network formed by the access point and the one or more associated wireless units.

57.   (New) A method of automatically adjusting a fragmentation threshold for data transmissions between an access point and at least one wireless unit, comprising:

determining a transmission error factor indicative of errors occurring in a transmission of one or more data packets between the access point and the at least one wireless unit; and

adjusting the fragmentation threshold based on the transmission error factor after translating a desired finite time duration for the transmission into the fragmentation threshold based of a transmission rate of at least one data packet following the one or more data packets.

58.   (New) The method of claim 57, wherein the determining of the transmission error factor comprises:

transmitting the one or more data packets; and

determining the transmission error factor based on a number of acknowledgement packets received in response to the transmitted one or more data packets.

59.   (New) The method of claim 57, wherein the transmission error factor is based on a number of errors occurring in the transmission of the one or more data packets.

60.   (New) The method of claim 57, wherein the transmission error factor is a value being a sum of (i) a number of transmission errors occurring successively multiplied by a first weighing factor and (ii) a number of transmission errors occurring sporadically multiplied by a second weighing factor, the first weighing factor being greater than the second weighing factor.

61.   (New) The method of claim 57, wherein the transmission error factor is a weighed value with transmission errors occurring successively to each other having a greater weighing than transmission errors occurring sporadically.

62.   (New) The method of claim 57, wherein automatically adjusting the fragmentation threshold comprises:

comparing the transmission error factor to an upper threshold; and

decreasing the finite time duration by decreasing the fragmentation threshold if the transmission error factor is above the upper threshold.

63.   (New) The method of claim 57, wherein automatically adjusting the fragmentation threshold comprises:

comparing the transmission error factor to a lower threshold; and

increasing the finite time duration by increasing the fragmentation threshold if the transmission error factor is below the lower threshold.

64.   (New) The method of clam 57, wherein automatically adjusting the fragmentation threshold comprises changing the fragmentation threshold by a divisional factor each time the fragmentation threshold is adjusted, the fragmentation threshold being based on a pre-determined fragmentation threshold divided by the divisional factor.

65.   (New) The method of claim 64, wherein the pre-determined fragmentation threshold is a maximum data packet size for transmission over a backbone network of a wireless network formed by the access point and the one or more wireless units.

66.   (New) A method of automatically adjusting a fragmentation threshold for data transmissions between an access point and a plurality of wireless units via a wireless medium associated with a wireless network, comprising:

determining a transmission error factor indicative of errors occurring in a transmission of one or more data packets between the access point and the plurality of wireless units;

translating a targeted finite time duration for the transmission into the fragmentation threshold; and

automatically adjusting the fragmentation threshold based on the transmission error factor and a change in a data rate of a transmission of at least one data packet following the one or more data packets.

67.   (New) An access point, adapted to communicate with at least one wireless unit via a wireless medium to provide the at least one wireless unit access to a wireless network, comprising:

a wireless transceiver; and

a logic circuit to (i) determine a transmission error factor indicative of errors occurring in a transmission of one or more data packets between the access point and the at least one wireless unit, and (ii) adjust the fragmentation threshold based on the transmission error factor after translating a desired finite time duration for the transmission into the fragmentation threshold based of a transmission rate of at least one data packet following the one or more data packets.

68.   (New) The access point of claim 67, wherein the logic circuit to determine the transmission error factor by computing a weighed value with transmission errors occurring successively having a greater weighing than transmission errors experienced by the one or more packets occurring sporadically.

69.   (New) The access point of claim 67, wherein the logic circuit in adjusting the fragmentation threshold changes a divisional factor each time the fragmentation threshold is adjusted, the fragmentation threshold being based on a pre-determined fragmentation threshold divided by the divisional factor.